

Title: Preferably Pb-free and As-free optical glasses with $T_g \leq 500^\circ\text{C}$

Abstract

The present invention relates to preferably lead-free and arsenic-free optical glasses, having a refractive index of $1.48 \leq n_d \leq 1.56$, an Abbe number of $64 \leq v_d \leq 72$, a low transformation temperature ($T_g \leq 500^\circ\text{C}$) and good ion exchange properties, as well as good chemical resistance and crystallization stability, and comprising the following composition (in % by weight):

SiO ₂	53	-	58
B ₂ O ₃	11	-	15
Al ₂ O ₃	16	-	20
Na ₂ O	0	-	13
K ₂ O	0	-	13
$\Sigma\text{M}_2\text{O}$	9	-	13
F	0.5	-	4

The glass may additionally contain standard refining agents. The invention also relates to the use of the optical glasses according to the invention in the application areas of imaging, projection, telecommunications, optical communication technology and/or laser technology.